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SHARP 21M-FG1L SERVICE MANUAL

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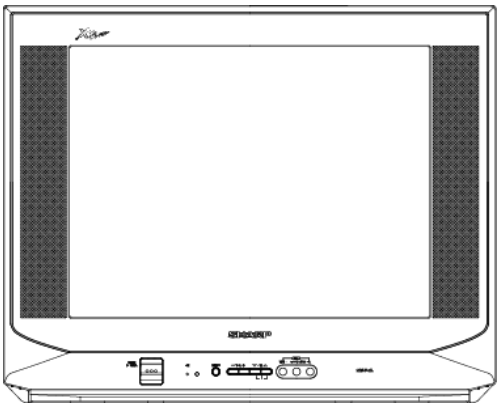
1st Edition

SHARP SERVICE MANUAL

S576821MFG1L



COLOUR TELEVISION
Chassis No. GA6

MODEL 21M-FG1L

In the interests of user safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts indentical to those specified should be used.

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ELECTRICAL SPECIFICATIONS

POWER INPUT.....AC 110-220 V, 50/60 Hz
POWER RATING 85W
PICTURE SIZE .....1,239 cm^2(192sq inch)
CONVERGENCE ..... Magnetic
SWEEP DEFLECTION .... Magnetic
FOCUS ..... Electrostatic
INTERMEDIATE FREQUENCIES
Picture IF Carrier Frequency ..... 45.75 MHz
Sound IF Carrier Frequency ..... 41.25 MHz
Color Sub-Carrier Frequency .....42.17 MHz
(Nominal)
AUDIO POWER
OUTPUT RATING... ..... 3.0 W(RMS) x 2pcs

SPEAKER
SIZE ..... 2" X 3.5", 2pcs
VOICE COIL IMPEDANCE .....16 ohm at 400 Hz
ANTENNA INPUT IMPEDANCE
VHF/UHF .....75 ohm Unbalanced
TUNING RANGES
VHF-Channels ..... 2 thru 13
UHF-Channels .....14 thru 69
CATV Channels ..... 1 thru 125
(EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

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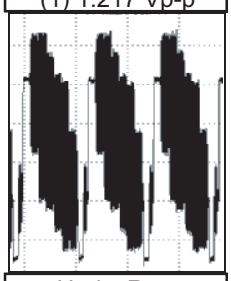
The contents are subject to change without notice.

CHAPTER 6. WAVEFORMS

[1] WAVEFORMS

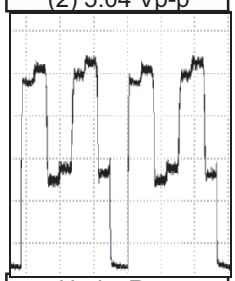
WAVEFORMS

(1) 1.217 Vp-p



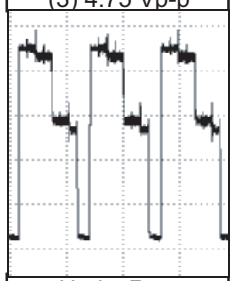
Horiz. Rate

(2) 5.04 Vp-p



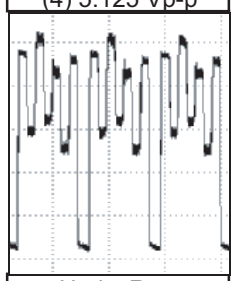
Horiz. Rate

(3) 4.75 Vp-p



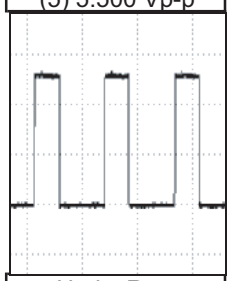
Horiz. Rate

(4) 5.125 Vp-p



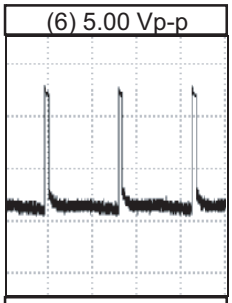
Horiz. Rate

(5) 5.500 Vp-p



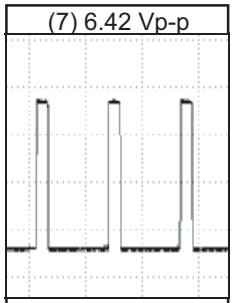
Horiz. Rate

(6) 5.00 Vp-p



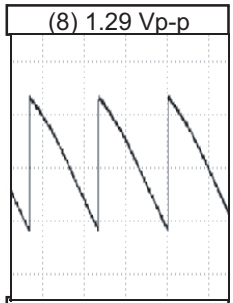
Vert. Rate

(7) 6.42 Vp-p



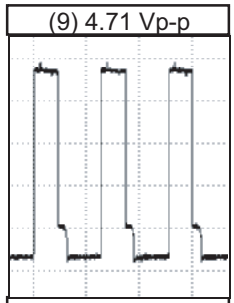
Horiz. Rate

(8) 1.29 Vp-p



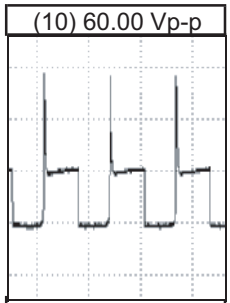
Vert. Rate

(9) 4.71 Vp-p



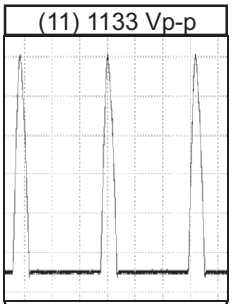
Horiz. Rate

(10) 60.00 Vp-p



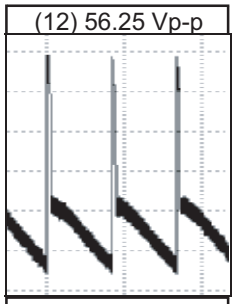
Horiz. Rate

(11) 1133 Vp-p



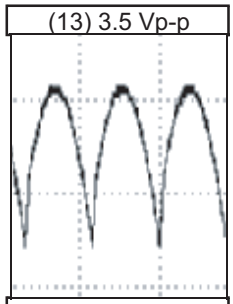
Horiz. Rate

(12) 56.25 Vp-p



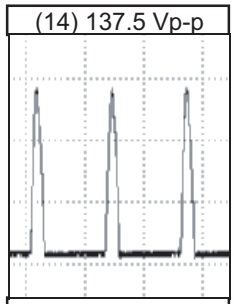
Vert.Rate

(13) 3.5 Vp-p



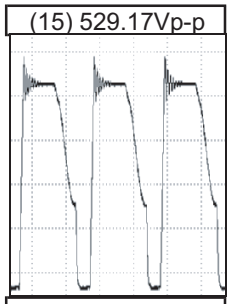
Vert. Rate

(14) 137.5 Vp-p



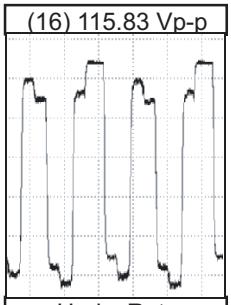
Horiz. Rate

(15) 529.17Vp-p



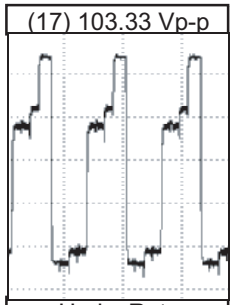
-

(16) 115.83 Vp-p



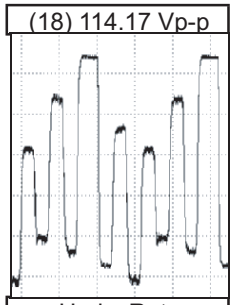
Horiz. Rate

(17) 103.33 Vp-p



Horiz. Rate

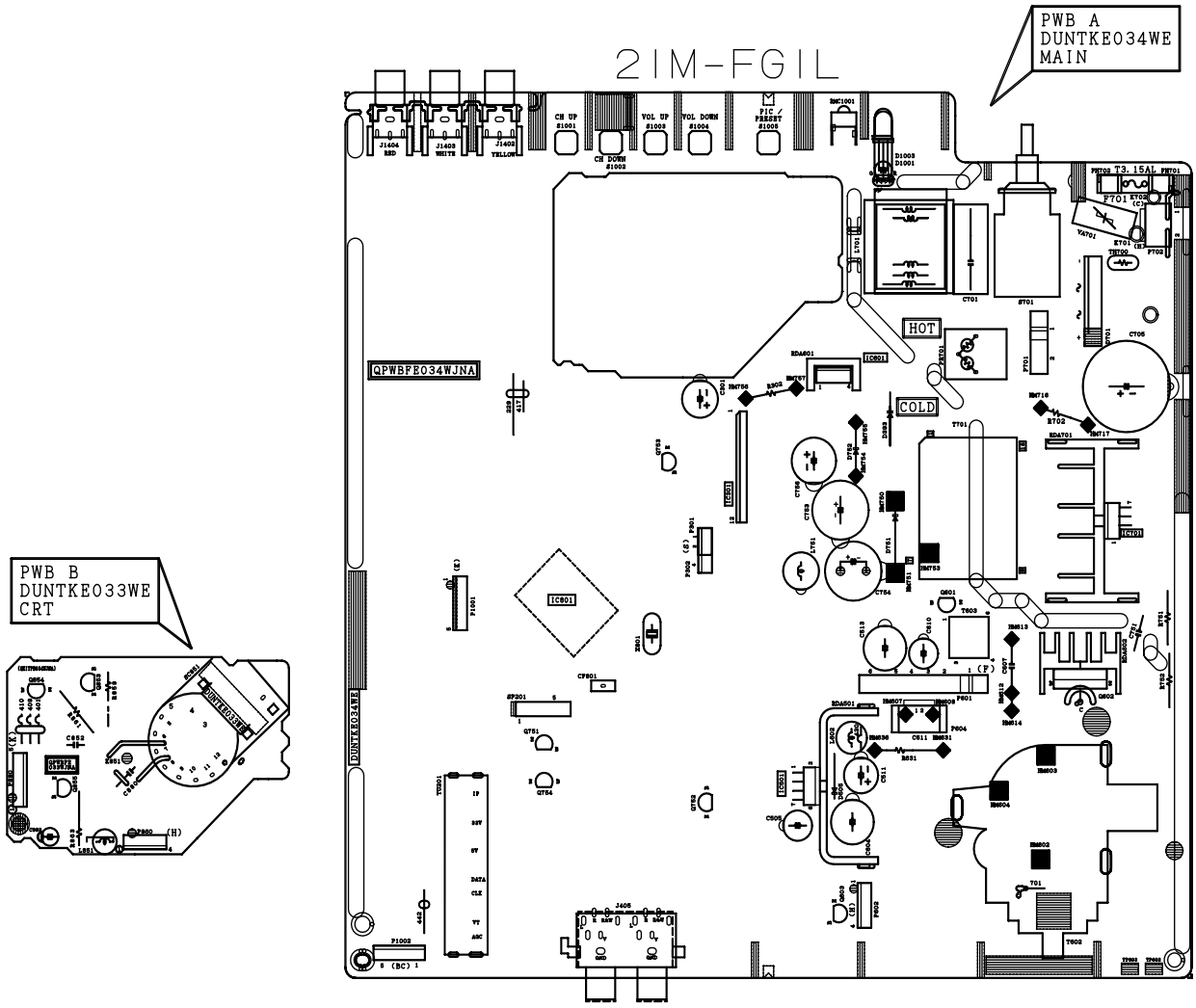
(18) 114.17 Vp-p



Horiz. Rate

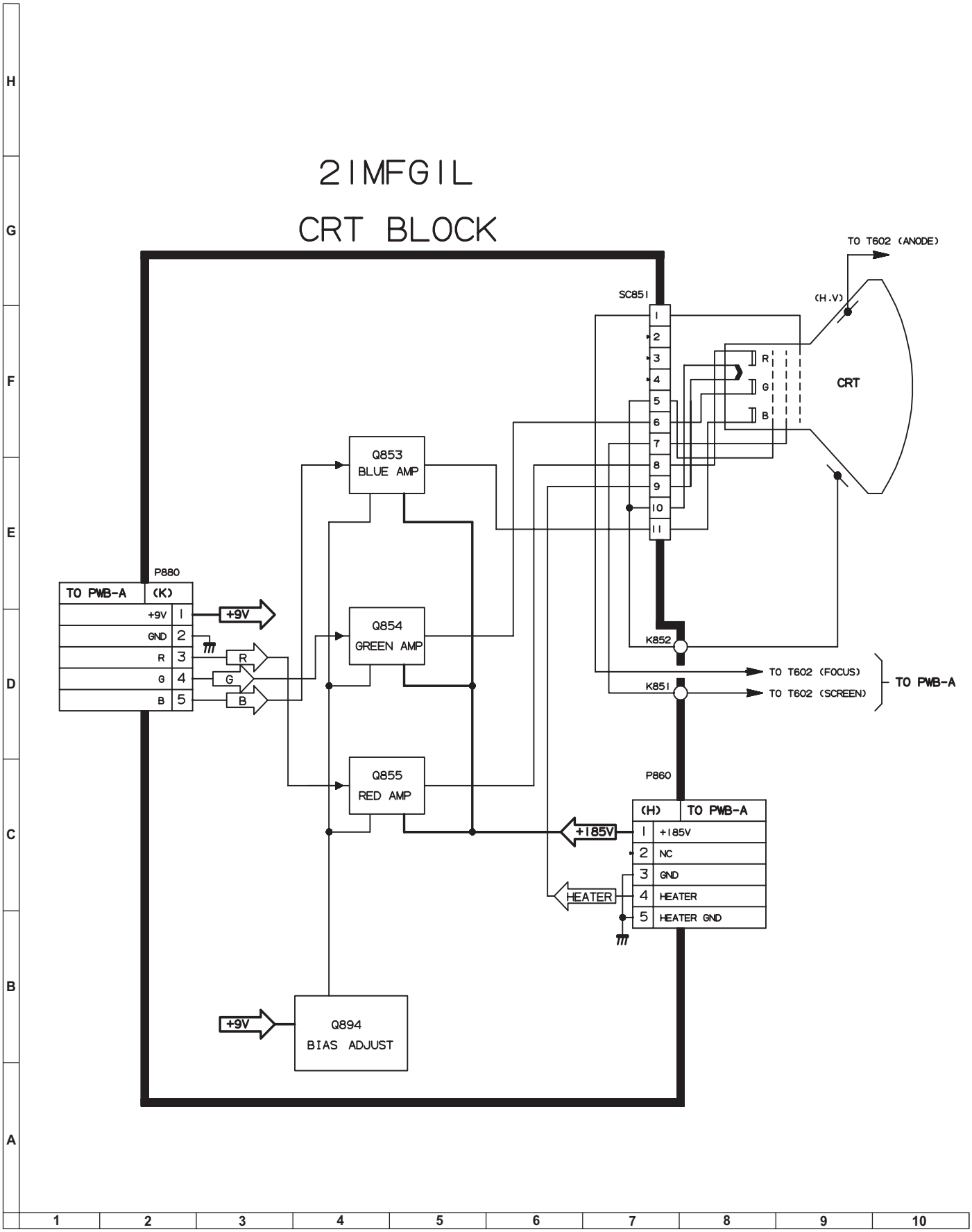
CHAPTER 7. CHASSIS LAYOUT

[1] CHASSIS LAYOUT

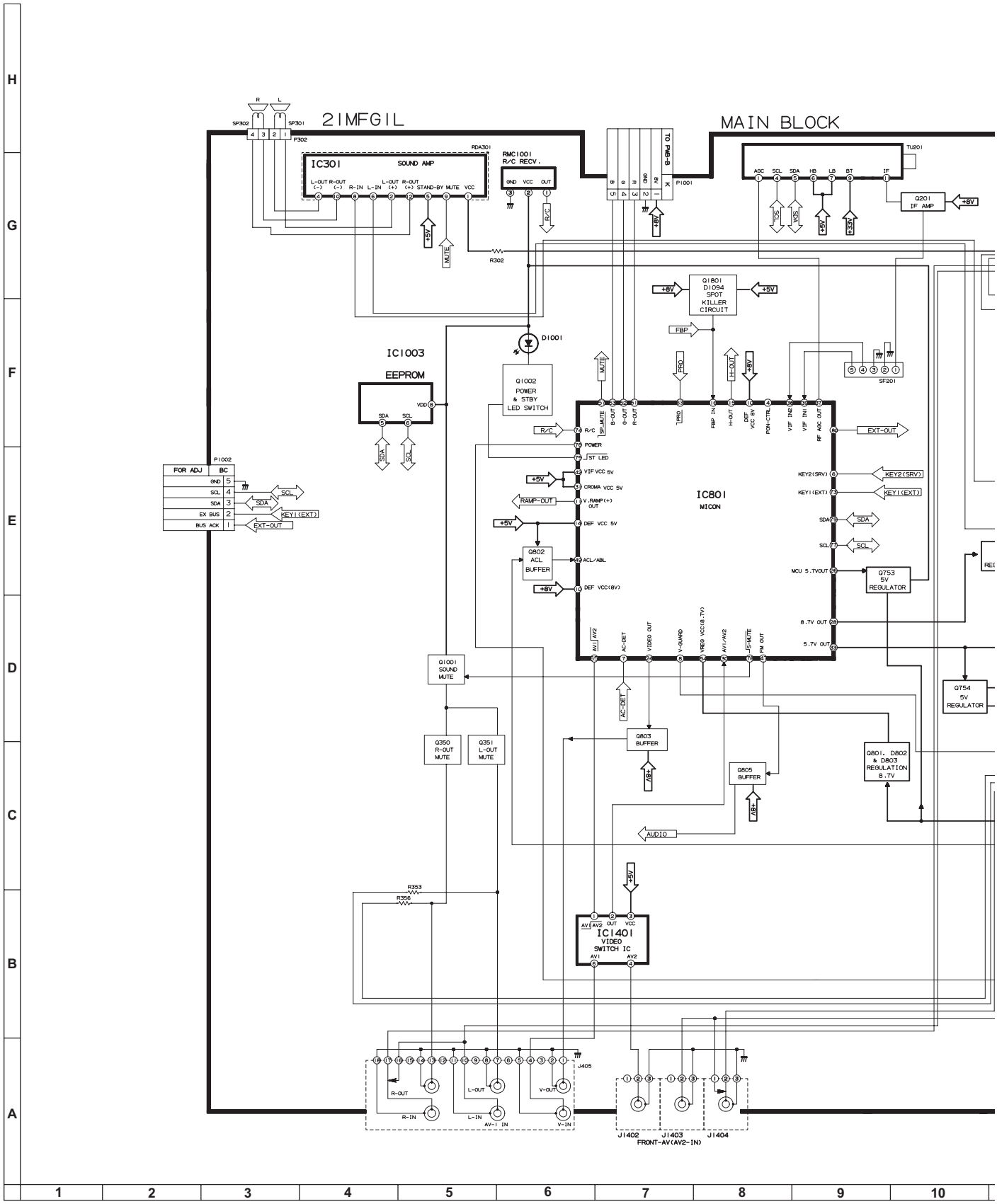


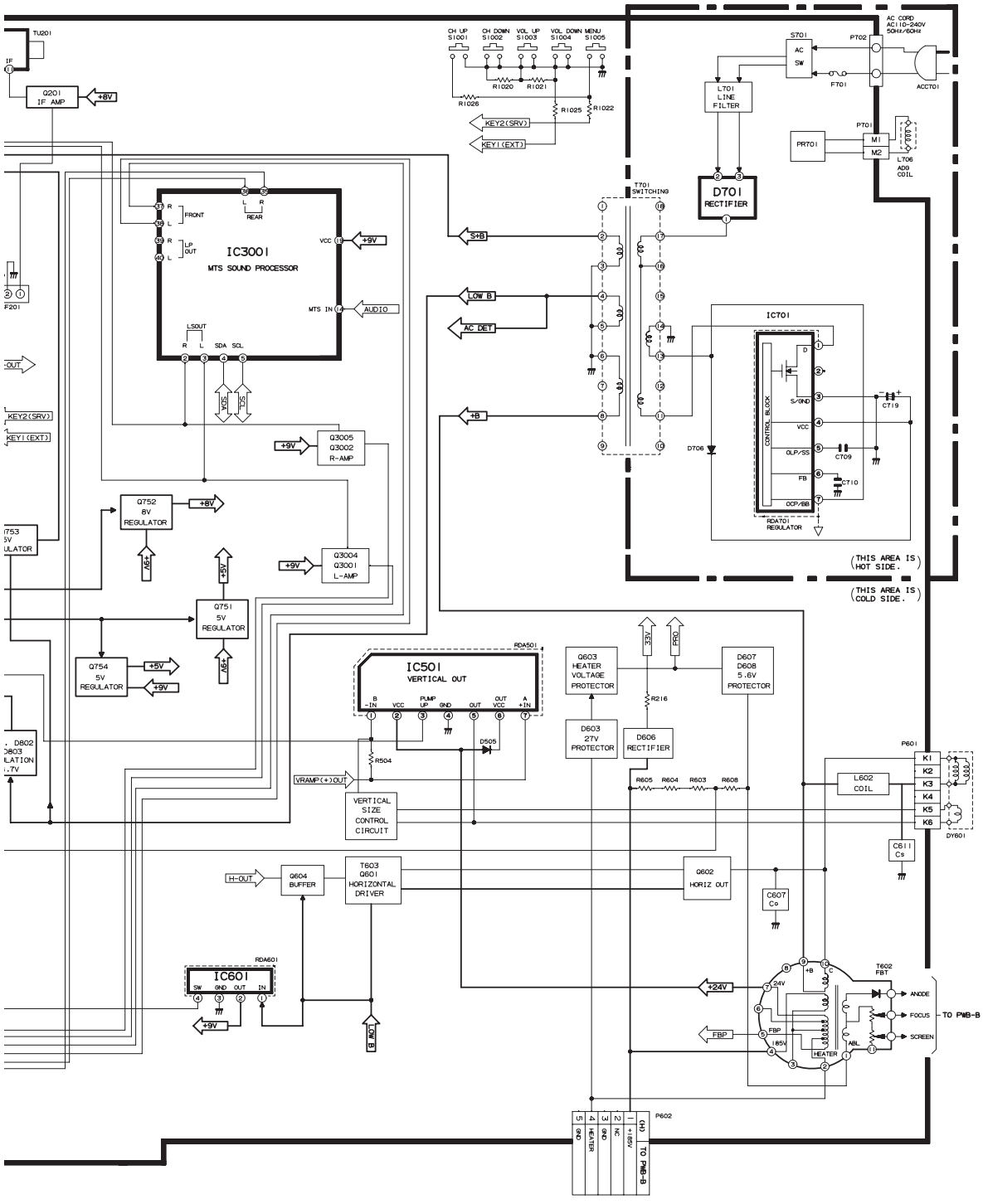
CHAPTER 8. BLOCK DIAGRAM

[1] BLOCK DIAGRAM: CRT UNIT



[2] BLOCK DIAGRAM: MAIN UNIT





10	11	12	13	14	15	16	17	18	19

CHAPTER 9. DESCRIPTION OF SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM

DESCRIPTION OF SCHEMATIC DIAGRAM

NOTES:

1. *The unit of resistance "ohm" is omitted. (K=kΩ=1000Ω, M=MΩ)*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P=pF=μμF)*
4. *(G) indicates ±2% tolerance may be used.*
5. *⏚ indicates line isolated ground.*

VOLTAGE MEASUREMENT CONDITIONS:

1. *All DC voltages are measured with DVM connected between points indicated and chassis ground, line voltage set at 120V AC and all controls set for normal picture unless otherwise indicated.*
2. *All voltages measured with 1000μ V B & W or Color signal.*

WAVEFORM MEASUREMENT CONDITIONS:

1. *Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.*
2. *indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)*

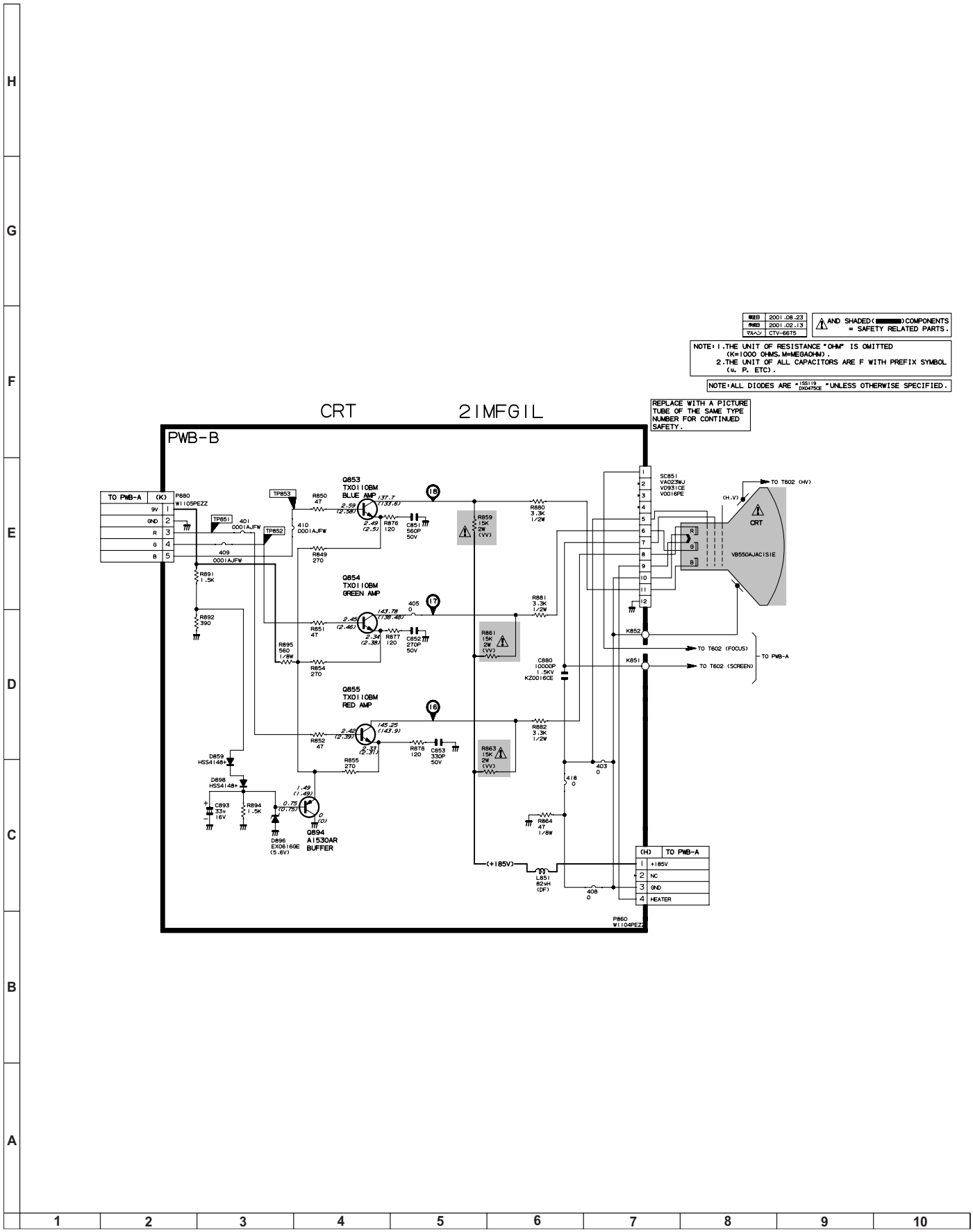
⚠ AND SHADED ( ) COMPONENTS = SAFETY RELATED PARTS.
▲ MARK= X-RAY RELATED PARTS.

DRGANNES MARQUES ⚠ ET HACHRES ( ): PIECES RELATIVES A LA SECURITE.
MARQUE ▲ : PIECS RELATIVE AUX RAYONS X.

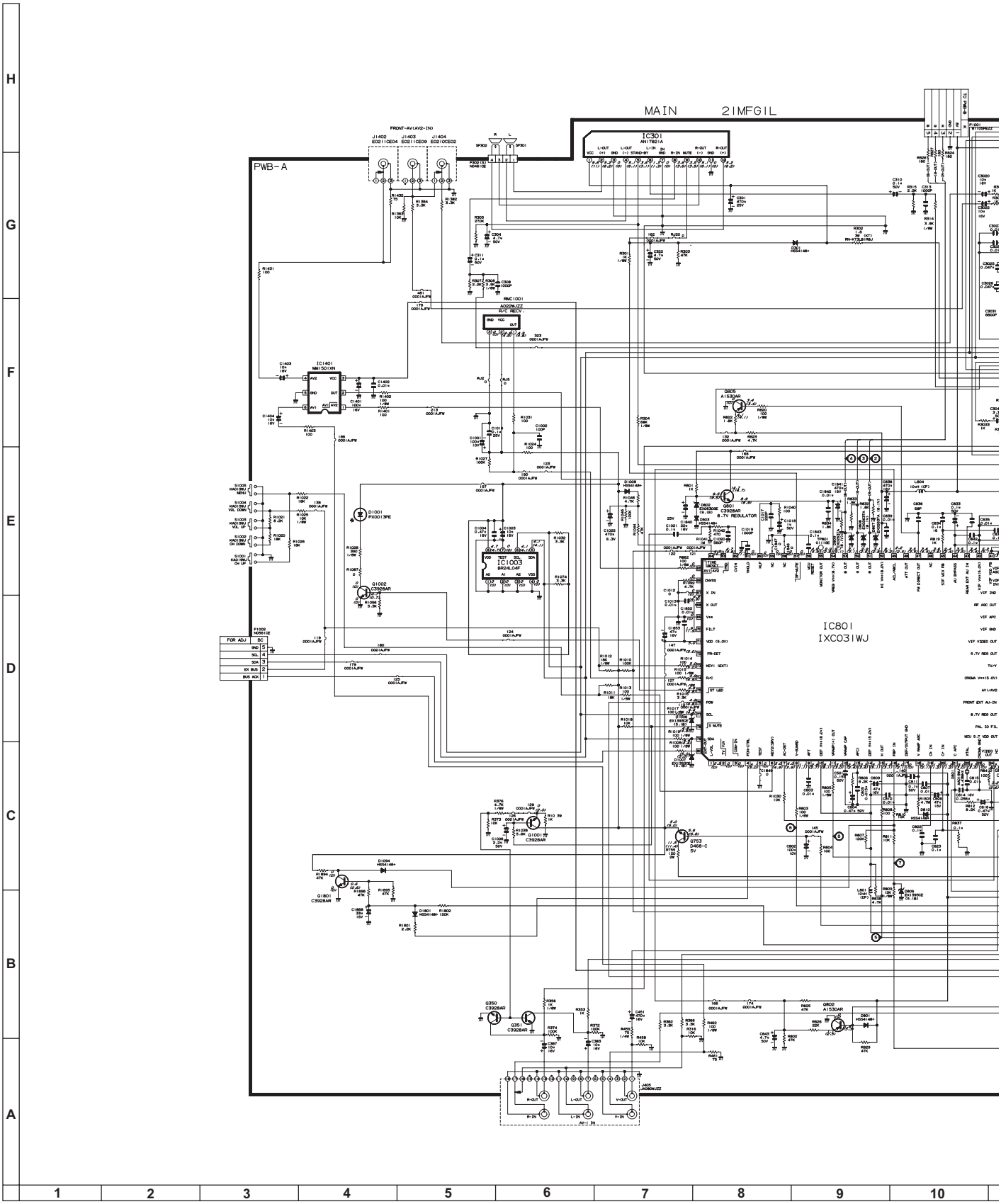
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

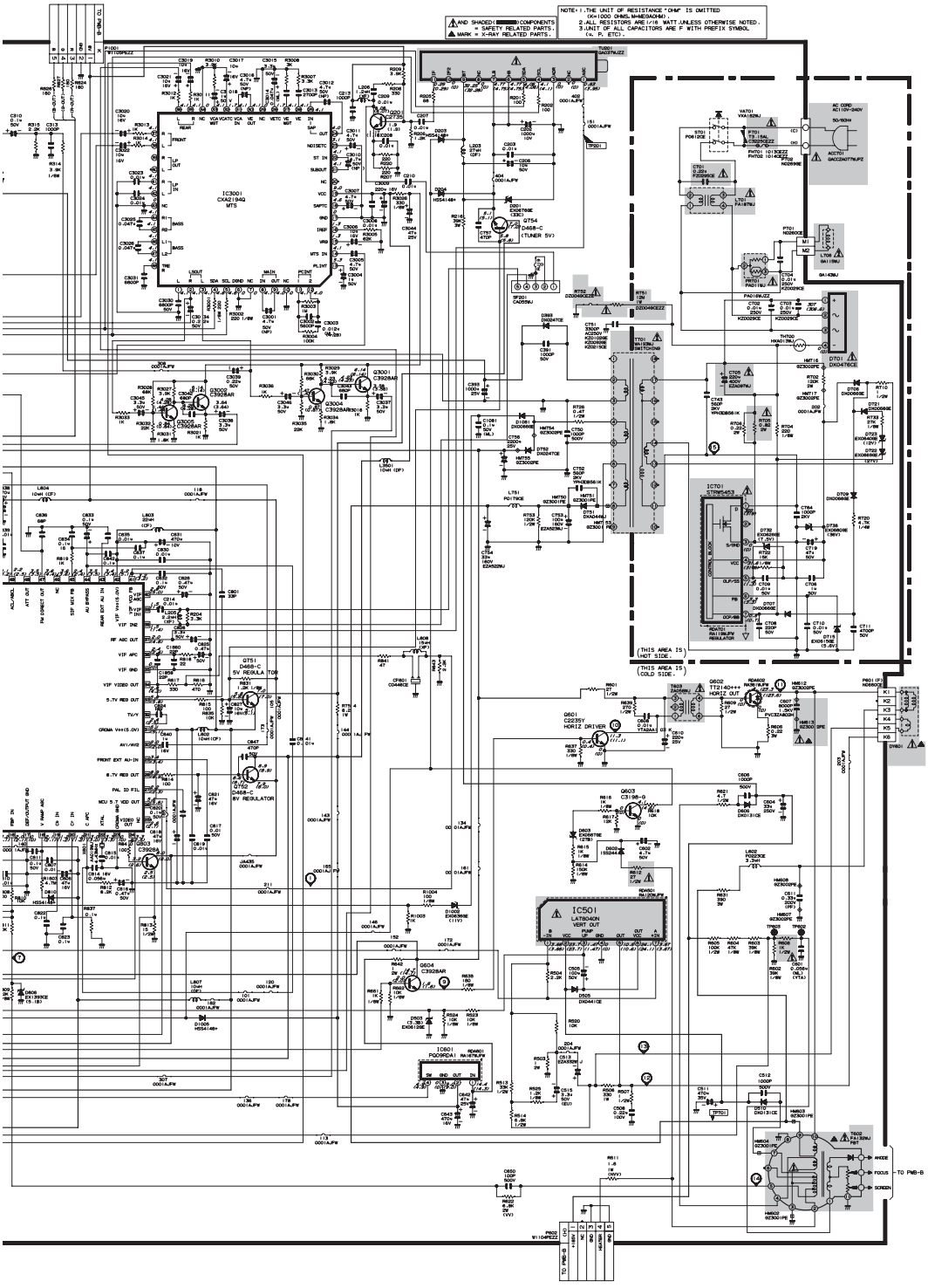
CHAPTER 10. SCHEMATIC DIAGRAMS

[1] SCHEMATIC DIAGRAM: CRT UNIT



[2] SCHEMATIC DIAGRAM: MAIN UNIT

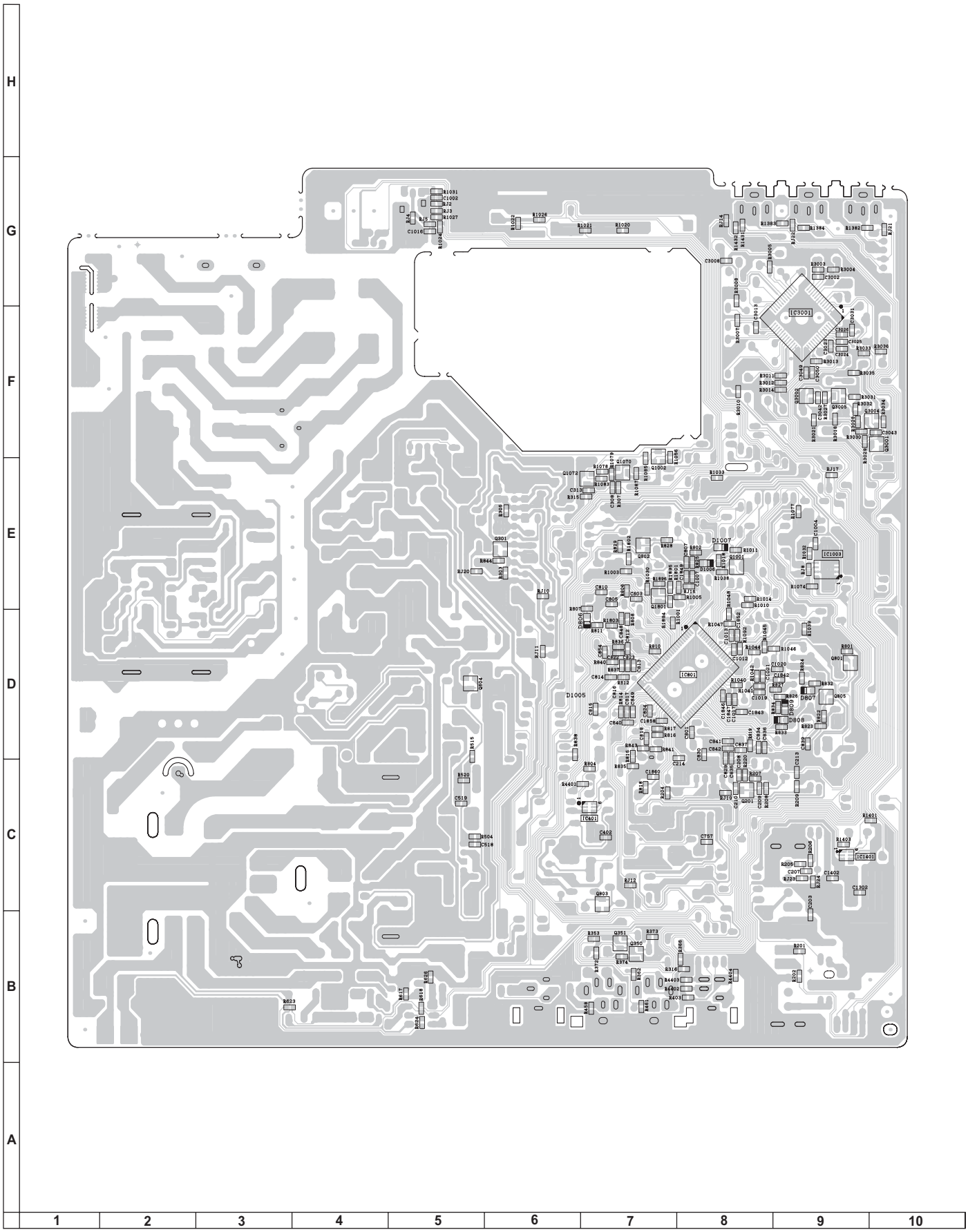




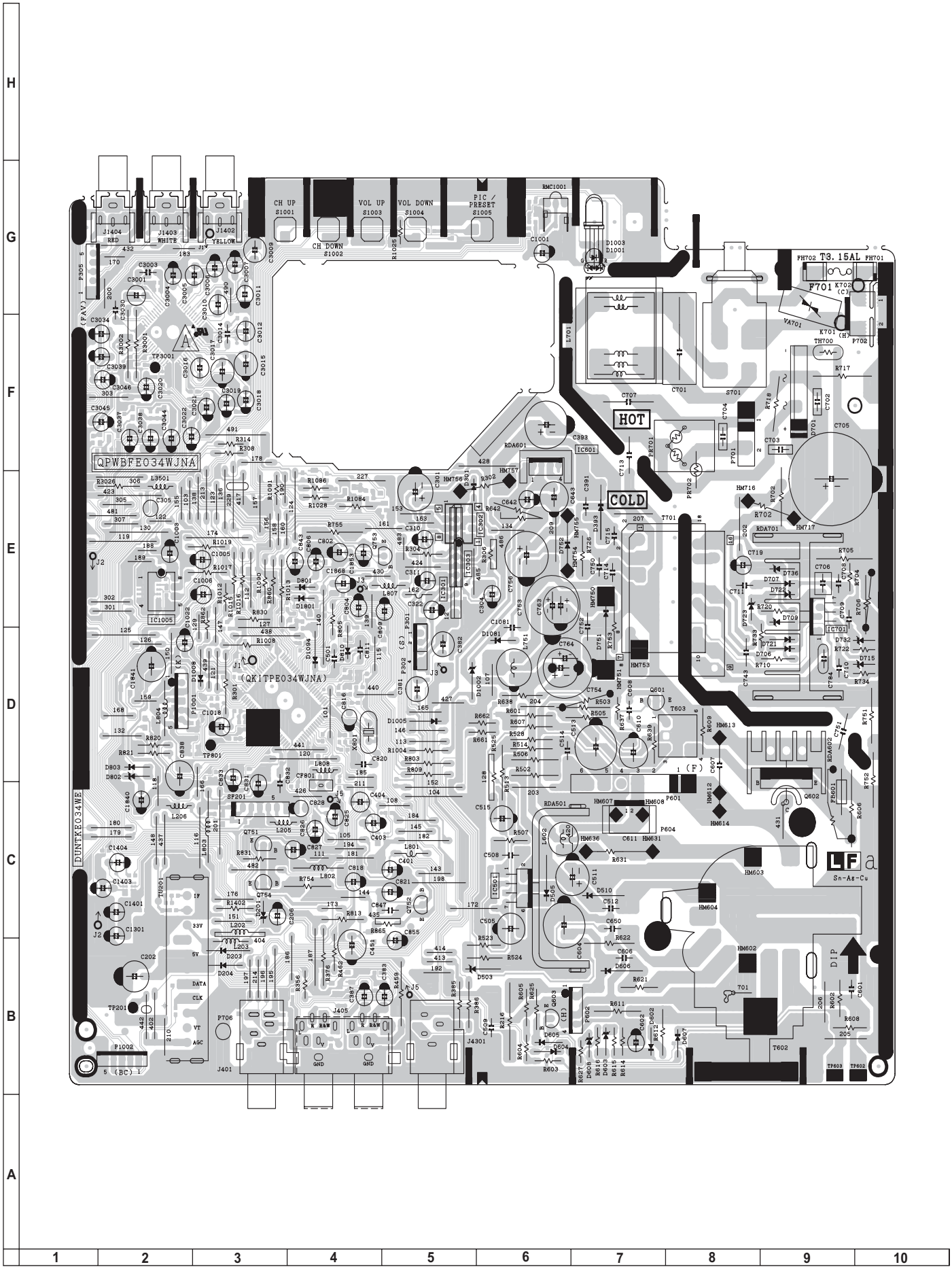
10	11	12	13	14	15	16	17	18	19

CHAPTER 11. PRINTED WIRING BOARD ASSEMBLIES

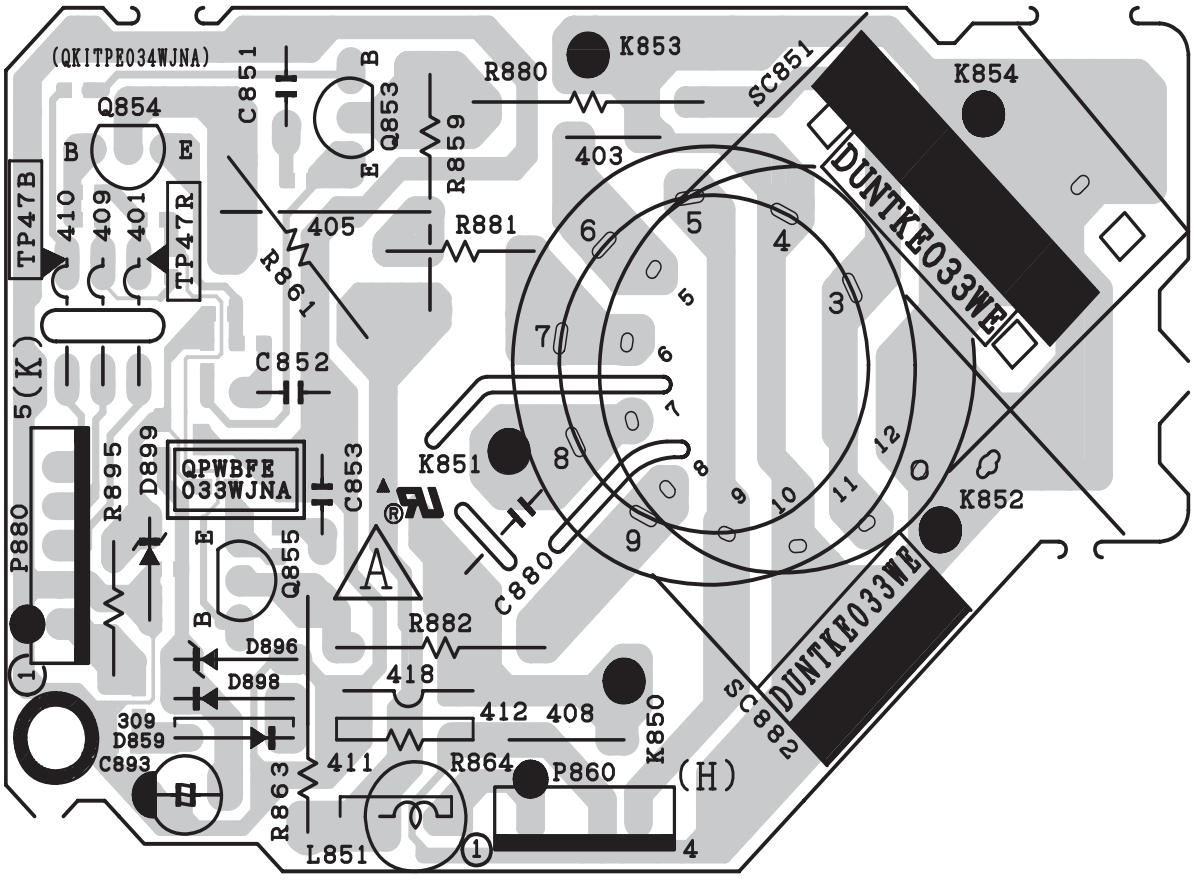
[1] PWB-A: MAIN UNIT (Wiring Side)



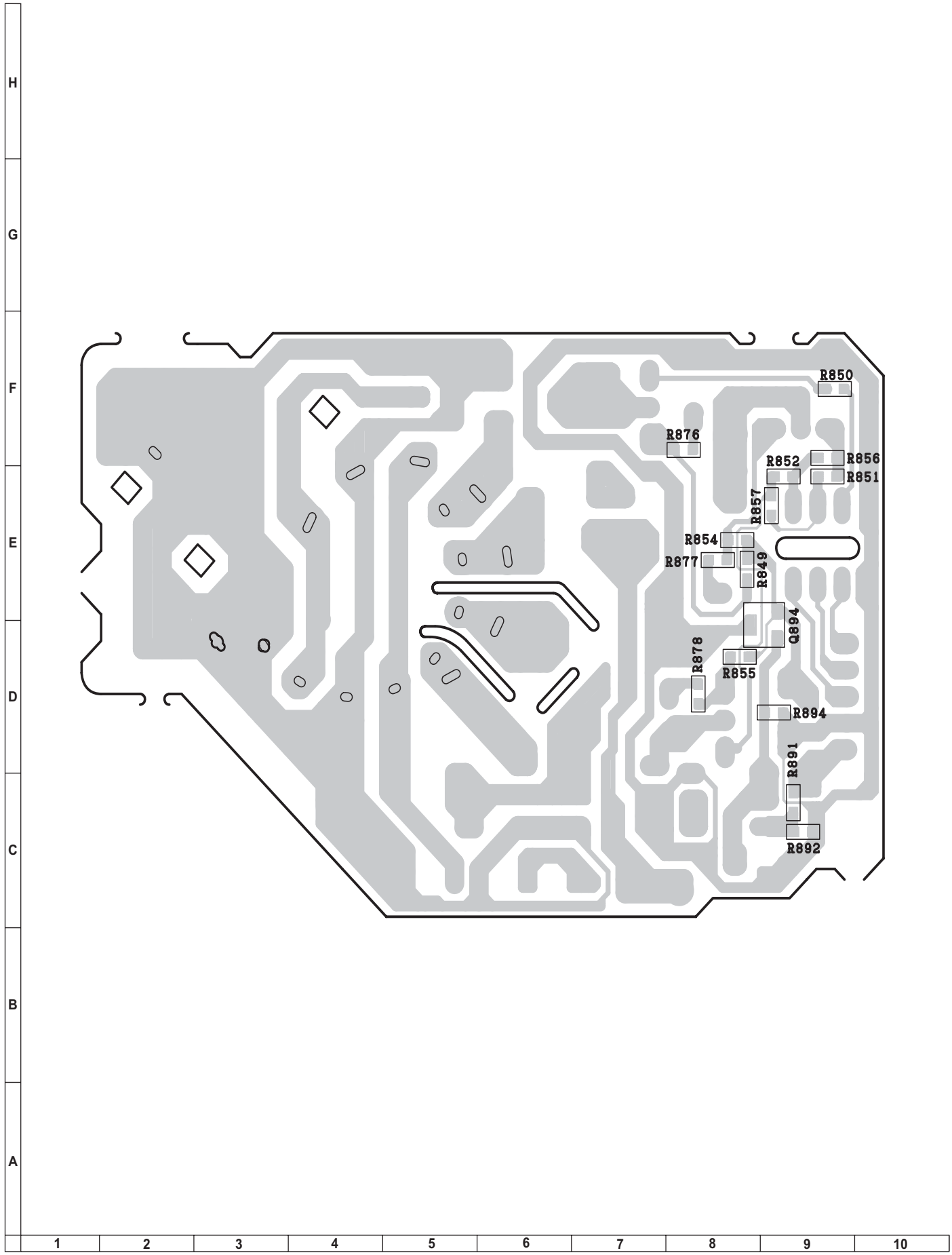
[2] PWB-A: MAIN UNIT (Chip Parts Side)



[3] PWB-B: CRT UNIT (Wiring Side)



[4] PWB-B: CRT UNIT (Chip Parts Side)



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